

Abstract

Chromium(VI)-Free Conversion Layer and Method for Producing it

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A chromium(VI)-free, chromium(III)-containing and substantially coherent conversion layer on zinc or zinc alloys presenting, even in the absence of further components such as silicate, cerium, aluminum and borate, a corrosion protection of approx. 100 to 1000 h in the salt spray test according to DIN 50021 SS or ASTM B 117-73 until first attack according to DIN 50961 Chapter 10; being clear, transparent and substantially colorless and presenting multi-colored iridescence; having a layer thickness of approx. 100 nm to 1000 nm; and being hard, adhering well and being resistant to wiping.

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